Valley
POWER SYSTEMS, INC.

AUTHORIZED DISTRIBUTOR
ELECTRO MOTIVE

NEW 144-AUTO FERRIES PROJECT
4420 14TH AVENUE NW – SEATTLE, WA 98107 Tel. 206-834-2329 Fax. 206-782-5455

1-DOC-010 Rev. -
(Formerly Calculation P-0291-08)

Contract 00-6679

ELECTRO-MOTIVE DIESEL

MARINE ENGINE DATA
MODEL 12-710G7C Tier 2

3/30/06

CHRISTOPHER K. LANE
STATE OF WASHINGTON
41575
REGISTERED
PROFESSIONAL ENGINEER

EXPIRES 9-30-07

Reviewed & Issued by: ______

Date: 3-30-06

ELECTRO-MOTIVE 12-710G7C ENGINE DATA
Specifications Common to EMD Series 710 (Tier2) Diesel Engines

Type . . . . 2 cycle — 45° Vee
Crankcase and Oil Pan Construction . . . . Welded Steel
Bore x Stroke . . . . 9-1/16" x 11"
Displacement Per Cylinder . . . . 710 cubic inches
Operating Speed Range . . . . 350-900 RPM
Full Load Speed . . . . 900 RPM
Piston Speed @ 900 RPM . . . . 1650 ft./min.
Compression Ratio 18:1
Air System Type . . . . Uniflow
Scavenging Air Supply . . . . Centrifugal flow turbocharger driven by exhaust gas turbine and/or engine gear drive through over-running clutch; two air aftercoolers
Cylinder Air Inlet . . . . Ports in cylinder liner
Exhaust . . . . Four valves in cylinder head
Piston Cooling . . . . Oil – direct pressure steam
Mail Bearing Lubrication . . . . Full pressure
Lube Oil Pumps . . . . Main oil, piston cooling, scavenging engine driven, positive displacement, helical gear type
Engine Overspeed Trip . . . . Electronic
Governor, Speed Control. . . . . Electro-Motive Diesel Electronic Control (EMDEC)
Fuel Supply Pump . . . . Positive displacement, engine driven
Fuel Injectors . . . . Electronic unit injectors – needle valve
Engine Starting . . . . Air motors (2)
Jacket Water Cooling (Fresh) Water Pumps . . . . Engine-driven centrifugal
Aftercooler Water Pump. . . . . Engine-driven centrifugal
Crankshaft Main Journal Diameter . . . . 8-1/2"
Crankpin Diameter . . . . 6-1/2"
Piston Pin Diameter . . . . 3.68"

General Data — 710 Series Diesel Engines

Engine Model	12-710G7C
Maximum Allowable Engine Inclinations Under Static (Permanent) Conditions Trim:	8° (Governor end low) 11° (Flywheel end low)
List:	15°
Under Dynamic (Momentary) Conditions Pitch:	15°
Roll:	45°

All angles specified are for the engine (not vessel) and, in all cases, are relative to the true horizontal or true vertical axis. For example if the engine is installed in the vessel with the flywheel end 2° low (trim), the engine can tolerate only an additional 9 ° permanent trim (11° total static condition) or an additional 13° momentary pitch in the same direction (15° total dynamic condition).

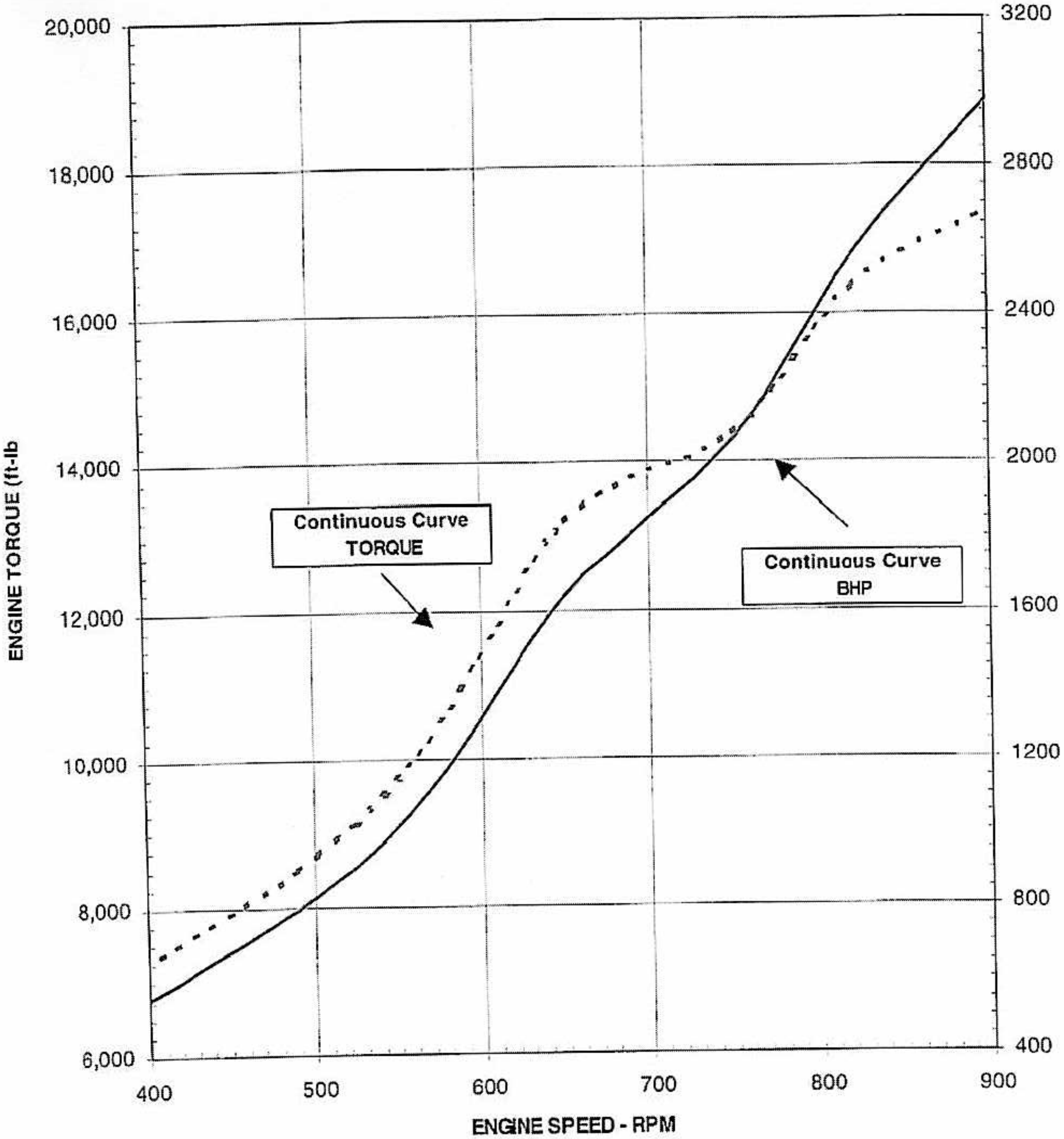
ENGINE DATA

Engine Models		12-710G7C
Number of Cylinders		12
Number of Main Bearings		7
Power Rating – Continuous @ 900 RPM	BHP	3000
	kW	2240
BMEP - Nominal	PSI	155
Total Displacement	Cu.In.	8520
Air Supply System Intake Air Volume @ 14.7 PSI - 90° F	CFM	9670
Fuel System Fuel Supply Pump -Suction Lift – Max.	Ft.	12
Fuel Pressure @ Filter Inlet (From Pump)	PSI	50-90
Fuel Pump Capacities	GPM	6
Lube Oil System Pressure @ Normal Operating Temperature (@ Governor Connection)	PSI	60-100
Temperatures To Engine (From Cooler)	°F	186-211 (195° jacket water AMOT)
From Engine (To Cooler)	°F	206-231 (195° jacket water AMOT)
Temperature Differential	°F	17-23
Oil Pump Capacities Scavenging	GPM	390
Main Lube Oil	GPM	185
Piston Cooling	GPM	66
Lube Oil Consumption Rate (Representative)	Gal/Hr.	0.206
Alarm Settings LOS, Lube Oil Switch @ Rated Speed	PSI	26-30
@ Idle Speed	PSI	10-14
HOS, High Oil Temperature @ Switch (Into Engine)	°F	238 alarm value (195° jacket water AMOT)
TOS, Turbo Lube Pump Low Oil Pressure (Rising Pressure)	PSI	10
Capacity, Turbo Bearing Priming and Shutdown Cooling Pump	GPM	3

ENGINE DATA

Engine Models		12-710G7C
Jacket Water System Jacket Water Flow Rate	GPM	660-680 GPM (with orifice per EMD drwng.)
Pressure Rise Across Fresh Water Pump (Total System Pressure Drop)	PSI	67 (±4)
Temperatures To Engine	°F	175-190 (195° jacket water AMOT)
From Engine	°F	185-200 (195° jacket water AMOT)
Temperature Rise Across Lube Oil Cooler	°F	3-5
Temperature Rise Across Engine	°F	8-10
To Lube Oil Cooler	°F	170-185 (195° jacket water AMOT)
Heat Rejection to Jacket Water Keel Cooler (No Fouling or Overload Included)	BTU/Min.	70,200
Jacket Water Flow Through Keel Cooler	GPM	660-680 GPM
Jacket Water Temperature to Keel Cooler	°F	200 (195° jacket water AMOT)
Alarm Setting ETS, Engine Water Temperature (From Engine)	°F	208 (195° jacket water AMOT)
Aftercooler Water System Aftercooler Water Flow Rate	GPM	300-320 (with orifices per EMD drwng.)
Pressure Rise Across Fresh Water Pump (Total System Pressure Drop)	PSI	51 (±4)
Temperatures To Engine	°F	110-120
From Engine	°F	125-135
Temperature Rise Across Aftercoolers	°F	12-15
Heat Rejection to Aftercooler Keel Cooler (No Fouling or Overload Included)	BTU/Min.	19,800
Jacket Water Flow Through Keel Cooler	GPM	300-320
Jacket Water Temperature to Keel Cooler	°F	130
Air Starting System Air Starting Motors		2
Starting Air Pressure	PSI	150 or 200
Air Starting Control Solenoid		24 Volts DC
Exhaust System Exhaust Back Pressure – Maximum Allowable		5 inches H_20
Exhaust Gas Volume	CFM	18011
Exhaust Temperature	°F	625°F
Engine Radiated Heat Radiation (Approx.)	BTU/min.	12,512 BTU/MIN

12-710G7C-T2 Engine
3000 BHP @ 900 RPM Continuous
US EPA Marine Tier 2 Compliant
ISO 3046/1



The following conditions apply: ISO 3046/1

Air Inlet Temp	77°F (25°C)	Fuel S. G.	0.855
Barometer	29.61 in Hg (100kPa)	Fuel LHV	18360 Btu/lb (42700kJ/kg)

+ 5% BSFC allowed

Composed: 8/10/2004 MA Lagomarcino
Approved: 8/10/2004 TJ Paulson
Document No.: EPC08100401 Rev. None

GM ELECTRO-MOTIVE

12-710G7C-T2 Engine
3000 BHP @ 900 RPM Continuous
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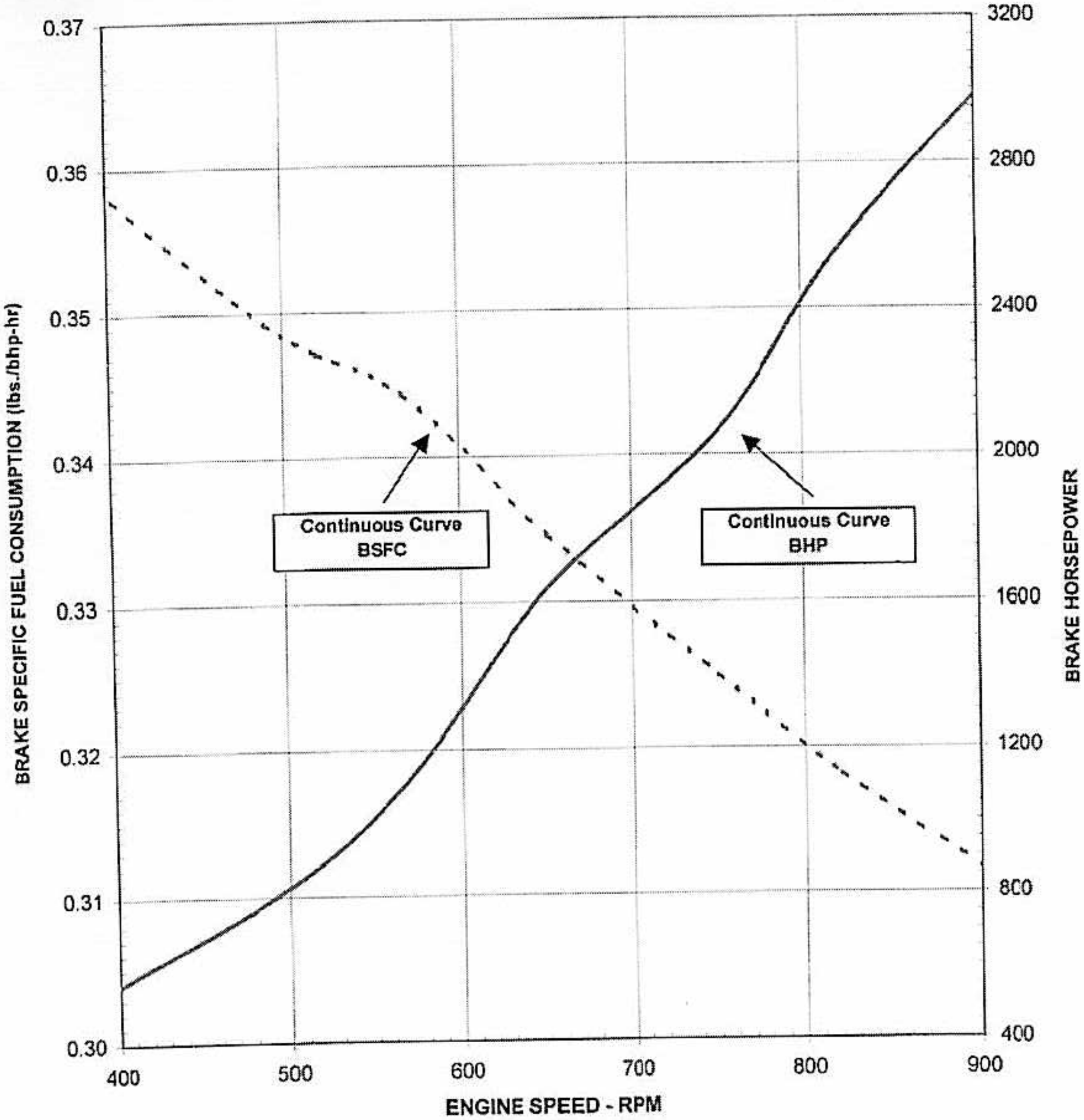

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+ 5% BSFC allowed

Composed: 8/2/2004 MA Lagomarcino
Approved: 8/2/2004 TJ Paulson
Document No.: EPC08020401
Rev. 3 8/10/04

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

2004 Model Year Certificate of Conformity

Manufacturer:	General Motors Electro-Motive Division
Certificate Number:	GMX-LOC-04-13
Effective Date:	DEC 1 9 2003
Date Issued:	DEC 1 9 2003

Merrylin Zaw-Mon, Director
Certification and Compliance Division
Office of Transportation and Air Quality

Pursuant to Section 213 of the Clean Air Act (42 U.S.C. section 7547) and 40 CFR 92, and subject to the terms and conditions prescribed in those provisions, this certificate of conformity is hereby issued with respect to the remanufacturing kit which has been found to conform to applicable requirements and which may be utilized with only the following locomotive engines, by engine family, locomotive model, and model year, more fully described in the documentation required by 40 CFR Part 92 and produced in the stated model year.

Locomotive Engine Family: 4GMXG0710ES1

This certificate of conformity is conditional upon compliance of said manufacturer with the provisions of 40 CFR Part 92, Subpart D. Failure to comply with these provisions may render this certificate void ab initio.

	switch	line haul
NOx	NOx FEL (switch): 8.1	NOx FEL (line haul): 5.5
PM	PM FEL (switch): .24	PM FEL (line haul): .20

This certificate of conformity covers only those locomotive remanufacturing kits which conform in all material respects to the design specifications that applied to those kits more fully described in the Application for Certification required by 40 CFR Part 92 and which are produced during the model year stated on this certificate of the said manufacturer, as defined in 40 CFR Part 92.

It is a term of this certificate that the manufacturer shall consent to all inspections described in 40 CFR 92.215(d)(1) and 92.504 and authorized in a warrant or court order. Failure to comply with the requirements of such a warrant or court order may lead to revocation or suspension of this certificate for reasons specified in 40 CFR Part 92. It is also a term of this certificate that this certificate may be revoked or suspended or rendered void ab initio for other reasons specified in 40 CFR Part 92.

This certificate does not cover locomotive engines sold, offered for sale, or introduced, or delivered for introduction, into commerce in the U.S. prior to the effective date of the certificate.

SD70ACe Locomotive Equipped With 16-710-G3C-T2 Engine

TIER2 CERTIFICATION EMISSIONS TEST (TH8 @ 4500 BHP)

EMD EXHAUST EMISSIONS TEST REPORT

Final Report

EMD CONFIDENTIAL

ENGINE TYPE: 16-710-G3C-T2
UNIT MODEL: SD70ACe
UNIT NO: GM 70
MISC. INFO:
GOVERNOR P/N:
INJECTOR P/N:

FUEL DATA (11/04/03)

%C FUEL	85.98
%H FUEL	12.86
%S FUEL	0.261
SP. GR.	0.8493
HC RATIO	1.782
FMW	13.807
MFHC	1.0000
HHV (BTU/LBM)	19547
LHV (BTU/LBM)	18374

LINE-HAUL DUTY CYCLE EMISSIONS
(EPA DUTY CYCLE - 40 CFR part 92)

DUTY CYCLE CO = 0.275 GMS/BHP-HR
DUTY CYCLE NOx = 5.079 GMS/BHP-HR
DUTY CYCLE HC = 0.176 GMS/BHP-HR
DUTY CYCLE PM = 0.073 GMS/BHP-HR

REMARKS:
Locomotive Emission Test 10332-12. Tier 2 Certification Test
Testing conducted in the Engineering Train Shed on 11/12/03.
This report covers the EPA Test Sequence emissions testing conducted
per ETO 10332 instructions.
NOx data was corrected for humidity and temperature using 40 CFR part 92
correction factor. EPA Duty Cycle from 40 CFR part 92 used in calculations.

STP conditions of 20 °C and 1 atmosphere used in the calculations of this report per 40 CFR part 92 requirements.

DATE OF TESTING	TIME OF TESTING	EMD POINT NO.	LINE-HAUL DUTY CYCLE %	SWITCHER DUTY CYCLE %	T/N	ENG. SPEED (RPM)	BHP (obs.)	FUEL RATE (obs.) (LBS./HR)	EUI BOI	EUI PULSE WIDTH	EUI SLEW	AMBIENT TEMP (°F)	AIRBOX TEMP (°F)	AIRBOX TEMP AT 86°F	BAROM (in.Hg)	EMISSIONS (GMS/BHP-HR) CO	CORR. NOx	HC	PARTIC-ULATE
11/12/03	13:50/14:04	32-12-01	19.0	29.9	LOW IDLE	200.3	36.2					96.0	143.3		28.967	0.92	21.38	1.41	1.24
11/12/03	14:13/14:19	32-12-02	19.0	29.9	IDLE	290.4	32.5					95.5	150.1		28.966	2.94	27.12	2.51	0.82
11/12/03	14:55/15:01	32-12-03	12.5	0.0	DYN. BRK.	370.4	59.0					91.8	127.9		28.984	3.94	21.80	1.96	0.71
11/12/03	15:13/15:19	32-12-04	6.5	12.4	1	290.3	264.7					93.4	137.4		29.004	0.54	9.27	0.42	0.17
11/12/03	15:41/15:47	32-12-05	6.5	12.3	2	370.4	623.8					88.4	126.8		29.015	0.26	7.01	0.25	0.16
11/12/03	15:57/16:03	32-12-06	5.2	5.8	3	490.5	1122.5					89.8	122.5		29.028	0.23	5.26	0.21	0.14
11/12/03	16:13/16:19	32-12-07	4.4	3.6	4	600.6	1557.4					89.6	122.0		29.040	0.19	4.73	0.17	0.08
11/12/03	16:33/16:39	32-12-08	3.8	3.6	5	760.5	2014.2					86.6	127.7		29.054	0.12	4.52	0.16	0.05
11/12/03	16:50/16:56	32-12-09	3.9	1.5	6	760.5	3026.5					86.6	130.7		29.057	0.18	5.16	0.13	0.06
11/12/03	17:07/17:13	32-12-10	3.0	0.2	7	860.2	3724.3					86.4	139.7		29.069	0.14	4.44	0.12	0.04
11/12/03	17:29/17:44	32-12-11	16.2	0.8	8	950.3	4482.5					94.0	146.9		29.079	0.27	4.52	0.13	0.05

N/A = Not applicable
N/R = Not reported

GM ELECTRO MOTIVE

EMISSION COMPLIANCE WITH EMD TWO-CYCLE DIESEL ENGINES

Since 1930, GM Electro-Motive (GM-EMD) has produced 70,000 two-cycle engines, ranging in size from 600 HP to 5500 HP. During that time, many milestones have been achieved. Recent developments include design enhancements to improve reliability and durability of the GM-EMD engine while continuing to meet strict Emissions regulations as well as maintaining world-class fuel economy.

In order to improve emission and engine performance for two-cycle diesel engines and to meet the challenges of the various regulatory requirements, GM-EMD has accelerated its engine development program over the past decade. To date, our engines comply with International Maritime Organization (IMO) standards and U.S. Environmental Protection Agency Tier 1 and Tier 2 marine emission standards - 40CFR 94. Several key technologies have been developed and introduced to meet these stringent regulatory requirements. As a result of our continued investment, one of the most significant accomplishments of the EMD two-cycle diesel engine is the reduction of emissions while minimizing any degradation in fuel efficiency. In addition, all product enhancements are subjected to Reliability Growth Tests (RGT) as well as field-testing to ensure product reliability. The GM-EMD engine has continued to demonstrate unprecedented durability and reliability while maintaining superior performance.

Marine Regulatory Requirements

The IMO requirements for marine diesel engines were introduced in 1997 under Annex VI of MARPOL 73/78, 'Regulations for the Prevention of Air Pollution from Ships', with the fundamental principle to achieve a worldwide uniform approach on maritime safety and environmental protection. These standards will go into effect, in the United States, May 19, 2005 and will apply retroactively to engines installed on constructed vessels or engines that have undergone major conversion January 1, 2000 or later. Prior to the May 19, 2005 date, Annex VI cannot be enforced, unless a Vessel's Flag State decides to enact those requirements on ships under its control, such as the United States did on January 1, 2004 under EPA marine Tier 1 requirements[1]. IMO standards set content limits on sulfur used in marine fuel oils (4.5% m/m) and emission limits for oxides of nitrogen (NOx) based on the engine's maximum operating speed—revolutions per minute (RPM). The NOx standard, which is shown in Figure 1, varies from 9.8 to 17.0 grams per kilowatt-hour (g/kW-hr) covering the entire range of prime movers in the marine industry.

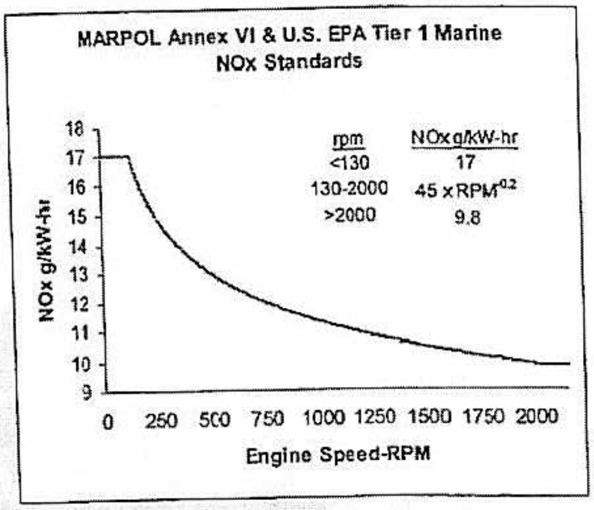


Figure 1

Future Regulations

In addition to IMO's MARPOL Annex VI requirements, the U.S. EPA has adopted more stringent emission standards under the Clean Air Act for new marine diesel engines that will be installed on vessels flagged or registered in the United States. While Tier 1 standards are similar to the internationally negotiated NOx limits adopted by IMO, EPA's Tier 2 standards are more stringent on NOx emission and also include limits on hydro carbons (HC), carbon monoxide (CO) and particulate matter (PM) emissions[2]. The Tier 2 standards will go into force in 2007 and will only apply to Category 1 and Category 2 marine diesel engines ranging in engine output between 500 and 8,000 kilowatts. These engines are used for propulsion power on vessels, such as tugboats and fishing vessels, as well as stand-alone generators for auxiliary power and have a per cylinder fuel displacement between 2.5 and 30 liters. Table 1 displays Category 2 Tier 2 standards. All EMD engines are Category 2 engines.

Electro-Motive Division/General Motors Corp. Power Products Dept 245, 9301 W. 55th Street
La Grange, IL 60525 USA (708) 387-5853, FAX (708) 387-5845 http://www.gmemd.com/

Table 1. EPA Marine Tier 2 Emission Standards for Category 2 Engines			
Displacement (D) dm^3 per cylinder	**NOx+THC** g/kWh	**CO** g/kWh	**PM** g/kWh
5.0 = D < 15	7.8	5	0.27
15 = D < 20 Power < 3300 kW	8.7	5	0.5
15 = D < 20 Power = 3300 kW	9.8	5	0.5
20 = D < 25	9.8	5	0.5
25 = D < 30	11	5	0.5

As most ocean-going vessels entering U.S. ports are flagged in other countries, the EPA is currently investigating whether it has the discretion under the Clean Air Act to apply Tier 2 standards to engines on foreign vessels. Accordingly, the EPA has stated that the United States will be participating in discussions to advocate a new set of stringent emission standards for marine diesel engines that would apply to engines on both U.S. and foreign vessels within IMO requirements.

Introduction to Emission Control

The diesel engine is the most efficient and reliable prime mover available in the market. The high efficiency of the diesel engine is attributable to its ability to operate at high pressures and temperatures during the combustion process. Engines of this type running at higher peak combustion temperatures, have greater NOx emissions. Higher peak combustion temperatures and the resulting NOx can be controlled by changing, or retarding, fuel injection timing at beginning of injection (BOI). For example, when BOI is retarded, a reduction in combustion temperature and NOx occur. These changes, although improving NOx, result in an increase in fuel consumption, smoke, and particulate emissions, as illustrated in Figure 2.

One of the most effective means of controlling NOx emission without losing fuel efficiency is by reducing combustion air temperature within the engine crankcase, commonly referred to as airbox temperature. For example, reducing airbox temperature by 10 degrees Fahrenheit results in 2 percent reduction in NOx with no fuel consumption penalty. For marine engines the availability of cooling water makes this technology very attractive. Improvements can be made to the engine emission and fuel consumption by utilizing temperate sea water as a cooling medium to decrease airbox temperature. Additionally, fuel injection equipment is a key factor in the formation of air fuel mixture during the combustion process. Both mechanical unit injectors (MUI) and electronic unit injectors (EUI) have been used to successfully meet stringent emission standards.

EMD Emissions Testing

Although exhaust emissions did not become regulated until the mid 1970's, EMD has been conducting engine emissions tests for over 40 years. Today, we have five onsite emissions test locations, a mobile emissions test lab, and a designated engine test location at the Argonne National Laboratory Center for Transportation Research.

A number of emission test applications are performed at GM-EMD worldwide headquarters in LaGrange, Illinois, to ensure emission compliance for the life of the engine. Our production plant has a designated emissions facility, which is utilized for quality control

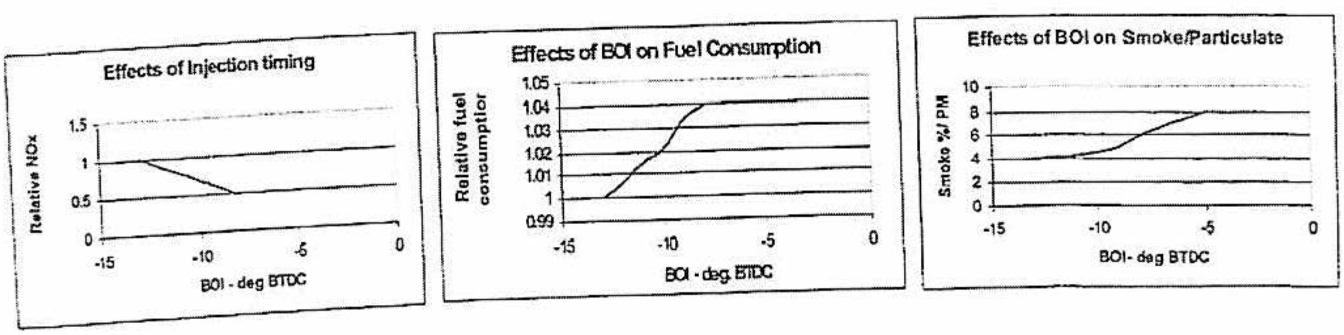


Figure 2

during the production of engines. This ensures each newly built engine meets the designated emissions standards. Additionally, the EMD Emissions Facility has the latest equipment technology, which is used for Engine, locomotive and kit certification. Our emissions control team performs various testing in our dynamometer test cells for developing new emission compliant products.

At the Argonne National Laboratory, we have a designated lab used to conduct emission testing in the

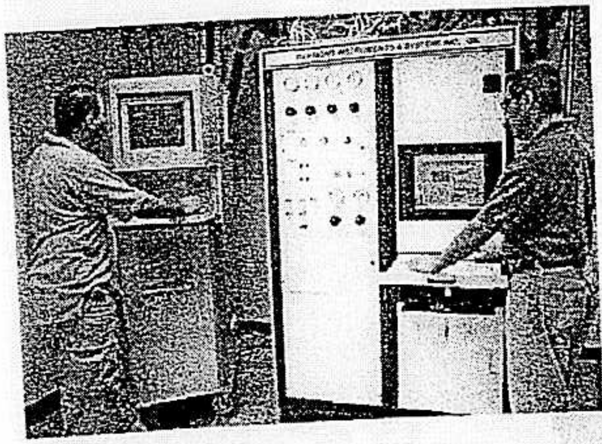


Figure 3

most tightly controlled environment allowing adjustments. This allows our emissions research team to analyze formulations to develop better emissions technology. Our relationship with Argonne National Laboratory as well as our multiple emissions test facilities demonstrate GM-EMD's dedication to maintaining its leadership in emissions technology.

Development of Emission Compliant Engines

At GM-EMD, we have developed and applied technologies based on regulatory requirements while maintaining focus on engine reliability and cost.

The technology utilized for meeting IMO and EPA Marine Tier 1 standards focused mainly on changes to the fuel injector. An innovative injector design, termed Constant Beginning of Injection (CBOI), is being utilized to achieve these certified emission levels. The advantage of the CBOI injector is improved fuel consumption during partial loads of the injector. The optimum injection timing is built into the Injector Helix, (patented feature), ensuring the injector timing procedure will not change. The 645 and 710 engines have been certified to meet IMO requirements by using these injector designs. Figure 4 shows the 12-645FB engine IMO certification test results.

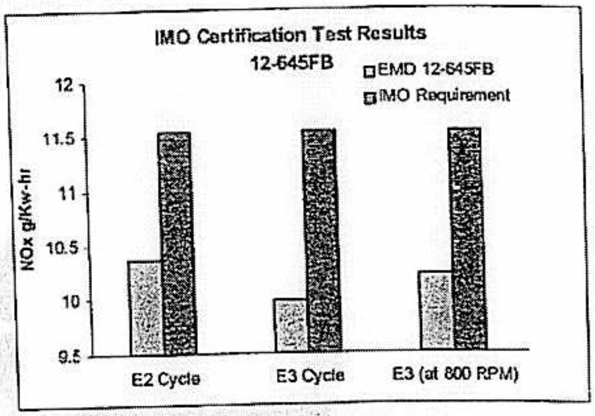


Figure 4

As can be seen from the certification results, the EMD engines exceeded IMO requirements in excess of 10 percent. This margin has been provided to account for variation in product to ensure compliance with regulations. GM-EMD has also developed a range of additional options, which apply to the marine engine market. These options will further reduce emissions or allow for improved fuel efficiency under low emission conditions.

GM-EMD can supply the following compliant EPA Marine Tier 1 marine engine emission kits, please contact your authorized EMD Distributor for details:

EMD 645 EPA Marine Tier 1 Emissions Kits	
Engine Model	**Cylinders Per Engine**
645 E	8,12,16
645 E5,7,9	8,12,16,20
645 EB	8,12,16,20
645 EC	8,12,16
645 FB	8,12,16,20

ELECTRO MOTIVE

Tier 2 Marine EPA Certification

Emissions development for the Tier-2 710 series engine is complete. Since 1985, EMD has produced over 5,000 two-cycle EMD 710 engines, and during that time, many milestones have been achieved, in regards to reliability, durability, fuel economy, as well as emissions certification. Significant resources were invested in modeling the engine combustion process utilizing computational fluid dynamics (CFD). This newly developed technology is used for simulating engine cycle modeling to predict airbox temperature during various engine performance. Figure 5 illustrates an example CFD simulation of the 710 engine combustion system analyzing the fuel injection, air-fuel mixing and combustion events.

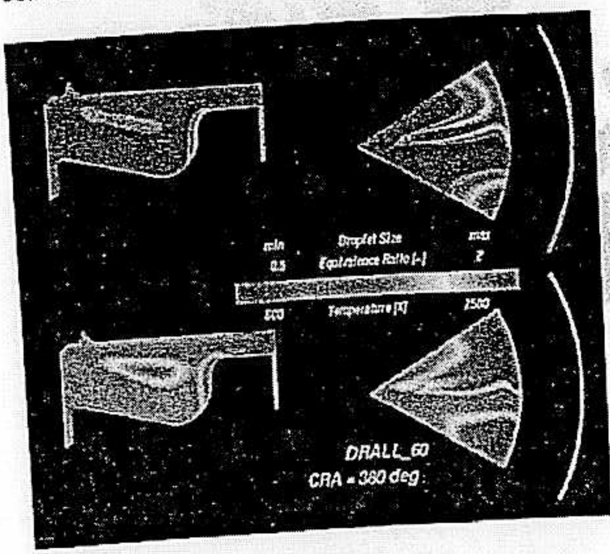


Figure 5

The Tier-2 710 engine evolved from its predecessor, the Tier-1 710 engine. The key changes to the Tier-2 engine include a new more efficient aftercooler, an optimized power pack assembly, a modified electronic unit injector, an optimized camshaft, an efficient crankcase ventilation system and an optimized turbocharger. All of these improvements can be used in upgrades to existing engines. While the 710 is currently demonstrating 2007 EPA Marine Tier-2 emissions standards with an impressive 42% reduction in NOx compared to IMO and EPA Tier-1 standards, an additional achievement has been the reduction in particulate matter (PM) by 50 percent. Figure 6 displays results from the marine emissions test.

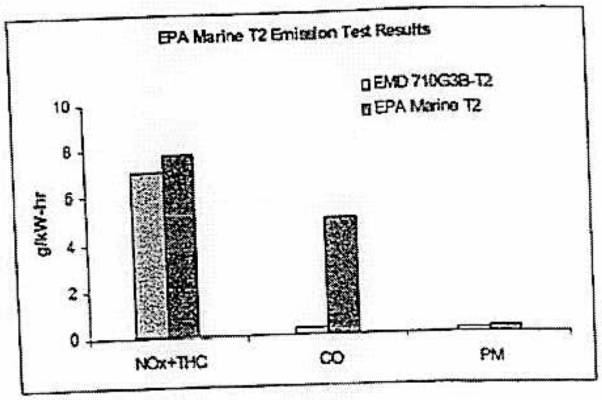


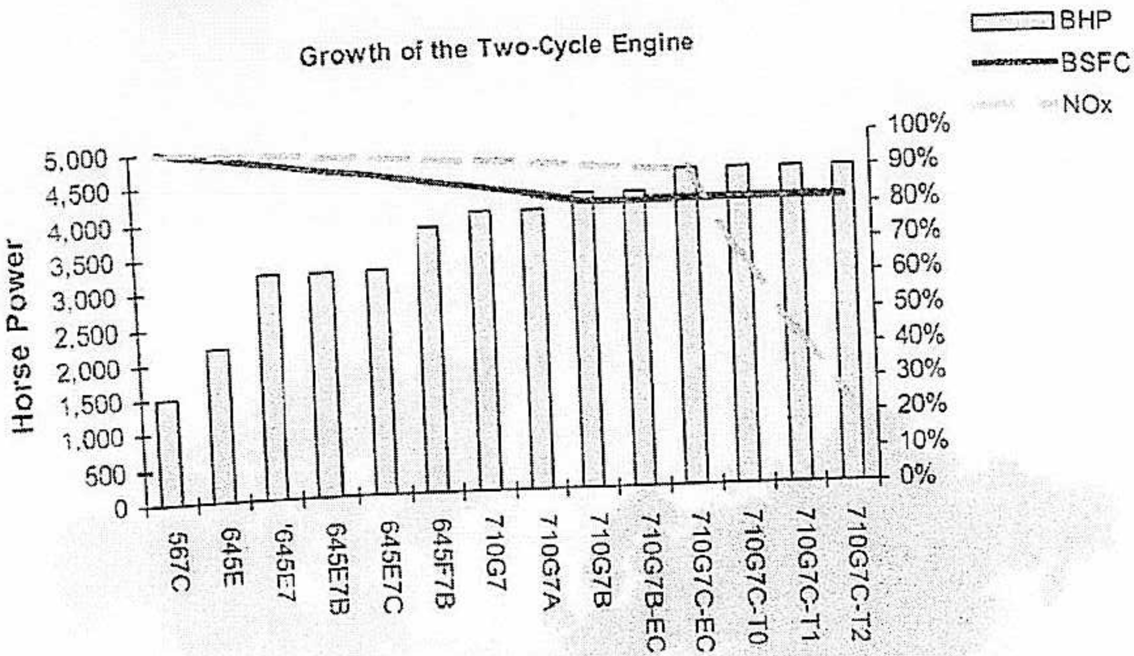
Figure 6

Over the past three years the 710 engine has averaged over 600 days (14,400 hours) between unscheduled failures proving that it can be counted on in the most challenging assignments. An additional benefit of improved power assembly components, enhanced turbocharger designs, and optimized aftercooler core designs is the reduction in engine peak firing pressure. Peak pressure in the engine generates cyclical loading, which determines the life of almost all engine components. Lower peak firing pressure reduces the amount of stress on engine parts resulting in improved reliability due to fewer failures over time.

An entire EMD cylinder assembly can be replaced within four hours using basic hand tools. Furthermore, the entire 710 engine can be inspected internally and externally in two hours, with only 30 minutes necessary to inspect major components. The ease of maintenance is a value added benefit customers have found to be just one of the many standards EMD has established throughout its history.

Fuel efficiency has always been a concern for the customer especially when it comes to meeting stringent emission regulations. The 710 engine is the most fuel-efficient engine in its class. In fact, the Tier-2 16-710, while emitting less than maximum allowed, has maintained fuel efficiency near Tier-1 levels without surrendering any horsepower. The chart below shows the development of the GM-EMD 16 cylinder engines over the last 40 years. The HP has tripled, while the BSFC
has been improved or maintained, even during emission certification.

GM ELECTRO MOTIVE



GM-EMD has an expansive worldwide network of Authorized Distributors and Service Centers for Power, Marine & Industrial engines. This value added support provides readily available parts and hands-on service to operators across the globe.

On the Horizon

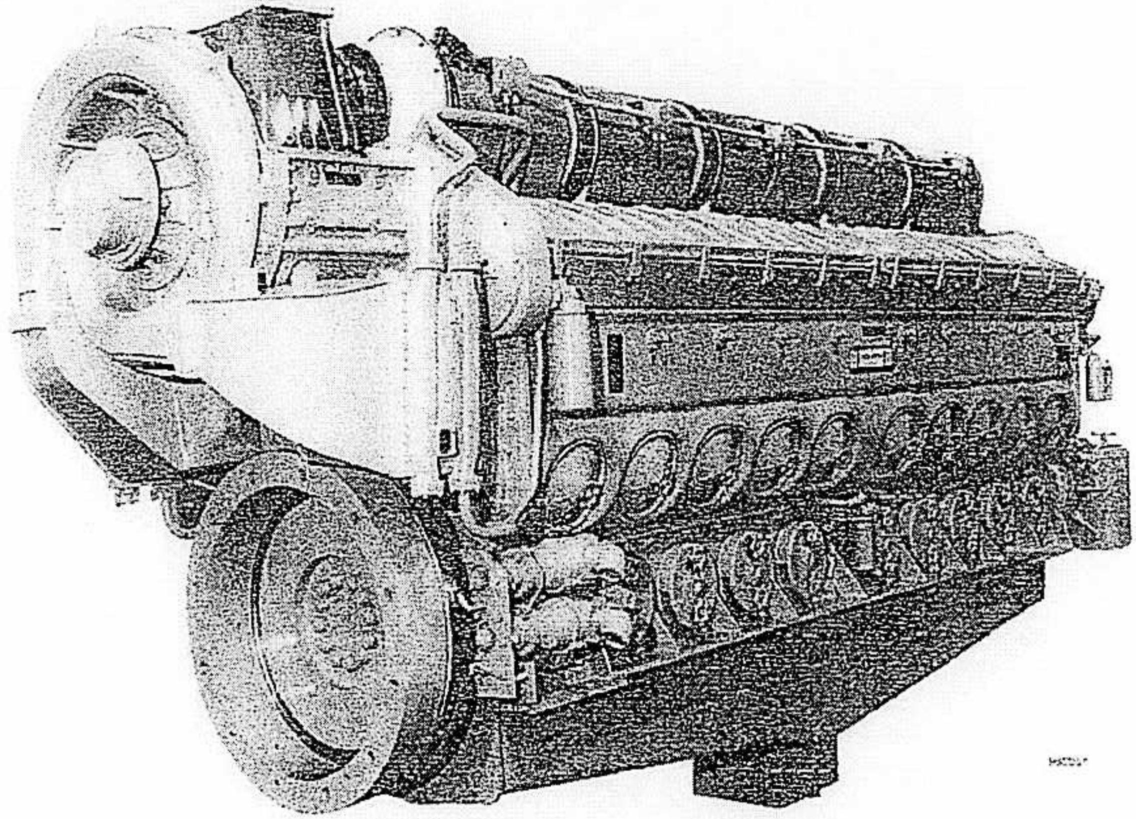
Looking ahead at future challenges in emission and engine development we feel confident there is more room for positive growth for our 645 and 710 engine families. As we developed the two-cycle engine to meet stringent emission standards it became apparent that the engine was not only fuel-efficient friendly but also upgradeable. "From the customers perspective, the EMD two-cycle engine is highly reliable and a simple engine to maintain, and we have kept it simple even when it comes to meeting stringent emission standards. The GM-EMD engine is truly the engine for tomorrow.

(Endnotes)

[1] The U.S. Environmental Protection Agency has adopted Tier 1 emission standards, which went into effect January 1, 2004, that are equivalent to MARPOL Annex VI. Specific details to MARPOL Annex VI can be obtained from the International Maritime Organization web site at www.IMO.org.

[2] A full description of all U.S. EPA marine emission standards can be found in "Emission Standards for New Commercial Marine Diesel Engines" (EPA 420-F-99-043, November 1999) and at the EPA's web site www.epa.gov/otaq/marine.htm.

ELECTRO MOTIVE



EMD 20-710G7B Marine Diesel Engine

More details are available from your EMD authorized Power Products Distributor (contact information available on our website) or contact us directly at http://www.gmemd.com/ (select: Power/Marine/Industrial)

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